

Bell and Howell Company - Company Profile, Information, Business Description, History, Background Information on Bell and Howell Company

Bell and Howell Company is one of the leading suppliers of equipment and services for information-related services and products, including online research databases, digital imaging systems, mail and messaging technologies, e-commerce solutions, and a wide range of other software applications. From the time of its original involvement in motion picture technology at the beginning of the 20th century, the company has been at the forefront of technological development.

Early Years: Serving the Motion Picture Industry

During the early 1900s, when Chicago was the center of the motion picture industry, Donald J. Bell worked as a projectionist in theaters around northern Illinois, where he became well acquainted with the equipment used for showing movies. As his interest in films and equipment grew, a friend helped secure him permission to use the machinist tools in the powerhouse of Chicago's Northwestern Railway, where Bell remodeled an Optoscope projector and later modified a Kinodrome projector. Bell met Albert S. Howell at the Crary Machine Works, where many of the parts for projectors were manufactured.

Howell was born in Michigan and traveled to Chicago to work in a machine shop that built and repaired motion picture projectors. In 1906 he applied for his first patent, a device that improved framing for 35mm Kinodrome motion picture projectors. With Bell's experience as a movie projectionist, contacts in the movie industry, and ready cash, and Howell's inventive genius and mechanical aptitude, the two men decided to start their own business. Incorporated with a capitalization of \$5,000 in February 1907, Bell and Howell Company entered the business of manufacturing, jobbing, leasing, and repairing machines.

During its first year of business, over 50 percent of the new company's business involved repairing movie equipment made by other manufacturers. What made the company

famous, however, was its development of equipment that addressed the two most important problems plaguing the movie industry at the time: flickering and standardization. Flickering in the early movies was due to the effects of hand-cranked film, which made the speed erratic. Standardization was needed as divergences in film width during these years made it nearly impossible to show the same film in any two cities within the United States. By 1908, Bell and Howell refined the Kinodrome projector, the film perforator, and the camera and continuous printer, all for the 35mm film width. With the development of this complete system, and the company's refusal to either manufacture or service products of any other size than the 35mm width, Bell and Howell forced film standardization within the motion picture industry.

In 1910, the company made a cinematograph camera entirely of wood and leather. When the two men learned that their camera had been damaged by termites and mildew during an exploration trip in Africa, they designed the first all metal camera. Introduced in 1912, the design 2709 soon garnered the reputation as "the most precision film mechanism ever made" and was produced for 46 continuous years. Following the relocation of the motion picture industry from Chicago to Hollywood, Bell and Howell's first movie camera was used in Southern California in 1912. By 1919, nearly 100 percent of the equipment used to make movies in Hollywood was manufactured by Bell and Howell.

With business expanding rapidly, the number of employees at Bell and Howell increased from 18 to 85 over a few years. In 1914, Bell and Howell decided to permanently locate its offices on Larchmont Avenue in Chicago. In the midst of the company's success, however, internal problems began to emerge. While Howell supervised production, Bell acted as a company salesperson, a job that required many long trips. In order to meet the needs of a growing business during his absences, Bell hired Joseph McNabb as both bookkeeper and general manager in 1916. When Bell returned from one of his trips, he discovered that McNabb had made drastic changes in the operation of the company. While confronting McNabb, Bell accused Howell of acting as McNabb's accomplice. Bell gave them their last paychecks and fired them.

The following day, McNabb and Howell returned to the office and offered to purchase Bell's holdings in the company. McNabb brought with him Rufus J. Kittredge and

Charles A. Ziebarth. Kittredge, McNabb's father-in-law, was head of a label manufacturing firm, and Ziebarth had been a former employee at Bell and Howell and a superintendent at the Chicago laboratory of the American Film Company. Both men had significant capital to invest in the company and years of management experience.

The purchase of Bell's interests in Bell and Howell amounted to \$183,895. Having contributed an initial investment of \$3,500 a little over ten years earlier, Bell was satisfied with the purchase price. Nevertheless, as he left, Bell told McNabb that the company was "a milked cow." Bell moved first to New York and then to California and was never again associated with the company except in name. With Bell's resignation as director and chairperson, four new officers were elected: Rufus Kittredge as president, Albert Howell as vice-president, Joseph McNabb as treasurer, and Charles Ziebarth as secretary.

By the 1920s, Bell and Howell's business was widely dispersed; two-thirds of all revenue came from the sale of cameras, camera accessories, punches, pilots and dies, and perforators. Hollywood was still equipped with mostly Bell and Howell products, and net sales had increased from \$10,000 in 1907 to \$338,500 by 1923, while profits were erratic. Nevertheless, the company opened branch offices in both New York and Los Angeles, and a new building was established in Hollywood.

Bell and Howell had expanded into the amateur movie market in 1919 when the company began developing 17.5mm equipment. In 1921 McNabb and Howell were invited to Rochester, New York, by George Eastman of Eastman Kodak to observe experiments using 16mm reversal material. McNabb and Howell were impressed with the results and redesigned all the company's 17.5mm equipment to use the 16mm film. In 1923 Bell and Howell manufactured the first spring-driven 16mm camera, beating Eastman Kodak by two years. The demand for this camera was so great that, even at a price of \$175, it was on back order until 1930. Over the next 20 years, almost two-thirds of all company developments were in the amateur field, and Bell and Howell equipment became prized for its lifetime guarantees.

Kittredge resigned as president in 1923, remaining to chair the board of directors until 1930. McNabb succeeded his father-in-law as president and led the company through the

prosperity of the 1920s. Bell and Howell's growth necessitated larger facilities.

Accordingly, the plant on Larchmont was doubled in size, and the company also opened its Rockwell Engineering Laboratory. From 1923 to 1929, the firm's net sales increased annually with a high point in 1925 when the percentage of profits to sales reached 39.9 percent.

After the financial collapse on Wall Street in 1929, Bell and Howell was forced to adapt its products and change its price structure to meet the economic conditions of the Great Depression. Net sales decreased between 1930 and 1933, and the company was operating at a deficit in 1932.

In spite of this financial setback, the company's department of product development and improvement remained highly active. In 1932, the Filmosound 16mm sound-on-film projector was introduced, and the company pioneered a zoom lens called the "Varo." Also that year, the automatic production printer as well as the motor drive and magazines on Eyemo cameras first appeared. Both a 16mm and 8mm perforator were manufactured in 1934, along with the 16mm continuous sound printer and the 8mm projector. In 1935, both the spool camera and the Bell and Howell developing machine were produced, while the turret camera and a title writer were brought to market in 1938. The following year, the 35mm non-slip sound printer was introduced. As a result of these product developments, Bell and Howell net sales rose to \$2.7 million in 1936 and \$4.8 million by 1939. Disappointingly, however, net profits generally remained unchanged.

World War II: Production and Managerial Changes

The fortunes of the company improved dramatically with the onset of World War II. Contracts were made with the U.S. Army, Navy, and Air Force for defense materials. During these years, Bell and Howell developed the gun camera used to assess the accuracy of machine guns, the retriflector sight used in B-29 bombers, the flight simulator employed in training pilots, bombardiers, and navigators to use radar, and an adaptation of the Eyemo camera for military purposes. By 1945, sales amounted to \$21.9 million, the highest in the company's history, while the number of employees increased to over 2,500.

The war years also ushered in changes for the company's management and employees.

Howell had resigned as chief engineer in 1939 and was appointed to chair the board of directors, where he served until his death in 1951. Charles Ziebarth remained with the company until his death in 1942. One year later, the company created the Bell and Howell Employees Trust to provide for the retirement of its workers, and in the spring of 1945 the company decided to go public.

At the end of the war, Bell and Howell experienced a sudden drop in production for war materials, losing government contracts worth \$9 million in 1945. Even though the company retooled its manufacturing lines for civilian products and introduced 12 new items from 1947 to 1949, including the Foton camera and various microfilm equipment, Bell and Howell was hit hard by a 40 percent decline in sales for the U.S. photographic industry. Net sales decreased from over \$21 million in 1945 to \$13 million in 1949, and the number of employees dropped by 30 percent.

One fortunate occurrence during these years was the purchase of the microfilm division of Pathe Manufacturing Company in 1946. This purchase provided the company with new product lines of microfilm equipment, including recorders, readers, and automatic feeders. Two years later, the Microfilm Division was selling products to Harris Trust, Firestone, Federal Reserve Bank of Chicago, and Continental Illinois National Bank.

After a long tenure as president of Bell and Howell, Joseph McNabb died in January of 1949 and was replaced by his hand-chosen successor Charles Percy. Percy, a graduate of the University of Chicago, had held a variety of positions in the company beginning in 1938. When he assumed the position of president and chief executive office at Bell and Howell he was 29 years old.

The new president represented a marked departure from the past in both administration and public relations. As owner and president, McNabb had run the company as he chose; his word on financial matters and product development was final. Percy, on the other hand, was the first among equals in a newly created executive committee. Charged with the responsibility of making recommendations on policy, salaries, promotions, dividends, acquisitions, and a host of other issues, Percy did not possess sole authority to make

decisions. In addition, not many people outside Bell and Howell knew who McNabb was or what he did. When the company went public, it was clear there was a need for someone with a flair for dealing with the media. Percy's speeches, interviews, and articles over the years of his presidency led to a rise in personal prestige and, consequently, a comparable rise in public esteem for Bell and Howell.

1950--70: Expansion and Diversification

During the 1950s, the company continued to emphasize development and expansion of its product line, which eventually included inexpensive amateur equipment, tape recorders, and hi-fi phonographs. In 1951, Bell and Howell was awarded its first Oscar by the Academy of Motion Picture Arts and Sciences for technical achievement. Four years later, the 16mm Filmo 70 camera was adapted for Admiral Richard E. Byrd's journey to the South Pole. Other developments included the electric eye camera in 1956 and the first zoom lens to fit 8mm projectors in 1957.

Under Percy's direction, Bell and Howell also initiated an aggressive acquisition strategy. Its first purchase was the Three Dimension Company, a manufacturer of stereo equipment, slide projectors, and tape recorders. DeVry Corporation, a projector company, was also purchased during this time. The Inserting and Mailing Machine Company, maker of equipment for mail-order firms, insurance companies, and banks, was acquired in 1958. With the purchase of Consolidated Electrodynamics Corporation, a research and development firm involved in aviation equipment, control systems, and electronic instrumentation, Bell and Howell sales increased to \$114 million by 1960, while its staff grew to 7,590.

In 1960, the company's International Division was reorganized. Major acquisitions, manufacturing contracts, and licensing agreements during this time led to the sale and servicing of Bell and Howell products in 99 countries around the world. The success of the International Division was indisputable: in 1963 cumulative sales from the division jumped an amazing 67 percent over the previous year.

Increasingly active in public life and service, Percy resigned as president in 1963 but remained as chairperson until he was elected to the U.S. Senate in 1966. Peter G.

Peterson assumed Percy's responsibilities in 1963 and became company chair when Percy relinquished that title. Since 1958, Peterson had served as the company's executive vice-president, head of the Photo Products Division, and chair of the Bell and Howell corporate research board.

Continuing Percy's strategy of expanding the company's product lines through acquisitions, in 1966 management purchased DeVry Technical Institute, Inc., a training school for students in motion pictures, radio, television, and electronics. The following year, Charles E. Merrill Publishing Company was acquired, as was KEL Corporation, a manufacturer of radio communications equipment. New products were also coming from Bell and Howell's own research and development programs. A thermal spirit copier-duplicator was developing in 1964, and a Super 8mm movie camera was completely automated and introduced in 1965. One year later, a zoom lens system was designed for the *Surveyor I* spacecraft, and language materials that facilitated instruction in speech correction and remedial reading were developed in conjunction with Bell and Howell Language Master equipment.

Under Peterson, the company's accomplishments rivaled those recorded during Percy's leadership. Developments in photographic equipment and business machines, work in software materials for the educational field, expansion into space exploration technology and instrumentation, and the growth of the international operation led to a 1970 sales figure of \$297.7 million with net profits of approximately \$11 million. However, profit margins for many products were much lower than expected, and the aggressive diversification strategy resulted in an assortment of entirely unrelated holdings--over 20 divisions were offering products and services that ranged from high-tech vocational classes to military binoculars.

1970--90: Divestiture and Privatization

In January 1971, Peterson joined the Republican administration of President Nixon and was soon appointed Secretary of Commerce. His successor was Donald N. Frey, who held a Ph.D. in metallurgical engineering from the University of Michigan and represented the first engineer to hold the position of chief executive officer at Bell and Howell. Charged

with the responsibility of pruning the company into a more efficient and profitable shape, Frey got rid of Bell and Howell's movie camera business and its consumer products business, including its trademark sound/slide projectors and famous 8mm cameras, as well as a host of other marginally profitable businesses. He then made microimagery and mail sorting, two previously tangential operations, the focus of Bell and Howell's product development.

By the early 1980s, Frey was confident he had turned the company around; from 1983 to 1984 operating earnings increased 33 percent to \$24.6 million, and sales grew 11 percent to \$679.2 million. Bell and Howell's mail-handling equipment operation and its vocational schools, especially DeVry Institute of Technology, expanded and generated significant sales. Furthermore, Bell and Howell had received Academy Awards for its motion picture program tape punch and modular film printer in 1975 and 1981, respectively. However, the company's microimagery division, which provided nearly 30 percent of the company's total sales, had developed into a cash cow with a projected annual sales growth rate of five percent; the market for microfilm had reached its peak and was saturated with competing products. Moreover, Frey had mistakenly held on to many businesses long after they had lost their profitability. Most importantly, however, by 1986 Frey had made 37 acquisitions, only one of which he could point to with satisfaction. Despite Bell and Howell's growing financial problems, compounded by 15 years of continuous acquisitions and divestitures and the high turnover of its management, Frey predicted that his restructuring strategy would succeed.

In 1986, however, Gerald Schultz, trained as the successor to Frey, was named president of the company, and as revenues stalled in 1988 at \$600 million, Schultz became part of the management group that joined forces with Texas financier Robert M. Bass to undertake a \$678.4 million leveraged buyout of Bell and Howell. Contributing \$82.3 million of the funds for the buyout, Bass assumed control of the company, appointed Schultz chief executive officer, and privatized the entire operation. After the acquisition, the company immediately began to sell what it regarded as non-core businesses in order to raise the money necessary to pay off the buyout debt. In September 1989, the company sold its textbook publishing division, Merrill Publishing, formerly one of its core

businesses, for \$260 million to Macmillan, Inc.

1990s and Beyond

Bell and Howell remained under Bass' control for seven years, during which time it changed direction and evolved into an entirely new company. By 1995, the one-time leader in cameras and projection equipment had morphed into an information management business, with an emphasis on manufacturing mail processing systems and providing micrographics services as a republisher of newspapers, periodicals, dissertations, and books on microfilm. In early May 1995, Bell and Howell once again went public, trading on the New York Stock Exchange under the ticker symbol BHW.

Two years later, the company once again saw a change in leadership. James Roemer, who had joined Bell and Howell in 1991 as president of the Publication Systems division, was named CEO of the parent company in February 1997. In January of the following year, he became the company's chairman as well.

By the time Roemer took the helm, Bell and Howell was operating in three business segments: Mail and Messaging Technologies; Information Access; and Imaging. The Mail and Messaging Technologies, which made up approximately 45 percent of the company's revenue, provided software-driven mail processing functions including collating, cutting, bursting, folding, inserting, scanning, encoding, and sorting. Its customers included organizations with high-volume mailing needs such as financial institutions, direct mail marketers, credit card companies, and others.

The Information Access segment, comprised of Bell and Howell Information and Learning and Bell and Howell Publishing Services, was the second largest segment, bringing in approximately 36 percent of the company's total revenue. The Information and Learning business collected information found in magazines, newspapers, out-of-print books, and dissertations and transformed it into digital format, selling it via Internet and CD-ROM to universities, schools, and libraries. Bell and Howell's Publishing Services unit provided software, services, and e-commerce systems to manufacturers, dealerships, and service networks. The bulk of Publishing Services' business was in providing

electronic parts catalogs to auto, marine, and motorcycle dealerships around the world.

Bell and Howell's final and smallest business segment was its Imaging Unit, a manufacturer of scanners that transformed paper documents into electronic or microfilm format. The Imaging business's primary markets were financial services, health care, insurance, government, and transportation.

Looking toward the future, Bell and Howell expected to continue a steady rate of growth, with a focus on Internet-related opportunities. The company anticipated an increasing use of the Internet in new product development in all of its core business units. According to the company's 1998 annual report, this new product development was expected to be a major element in the company's growth. "We aim to stay so close to the markets we serve that we develop and introduce leading-edge products and services before our customers even recognize those needs themselves," James Roemer wrote in his 1998 letter to shareholders. Another growth strategy involved strengthening Bell and Howell's overseas presence. As of 1999, most of the company's international business was confined to Western Europe; however, the company had plans to begin shipping mail processing equipment into Japan and China as well. The company also planned to enhance its growth by continuing to make strategic acquisitions based upon the needs of each of the business units.

Principal Subsidiaries: Bell & Howell A-V Limited (U.K.); Bell & Howell Information Publications International Limited (U.K.); Bell & Howell Cope Company; Bell & Howell Document Management Products Company; Bell & Howell Financial Services Company; BHAC Leasing Corporation; Bell & Howell Foreign Sales Corporation (Barbados); Bell & Howell France S.A.; Bell & Howell GmbH (Germany); Bell & Howell AG (Switzerland); Bell & Howell Ges.m.b.H. (Austria); Bell & Howell International Services Company; Bell & Howell Japan Ltd. Co.; Bell & Howell Limited (U.K.); Micromedia Limited (U.K.); Paragon Technical Services Limited (U.K.); International Imaging Limited (U.K.); Bell & Howell Ltd. (Canada); Bell & Howell Mail Processing Systems Company; Blue Lake Software, Inc.; Bell & Howell Mailmobile Company; Bell & Howell Europa BV (Netherlands); Bell & Howell Nederlands B.V. (Netherlands); Bell & Howell Postal Systems Inc.; Bell & Howell Publication Systems Company; Bell &

Howell Paperwise Company; Bell & Howell PW Licensing Company; Bell & Howell (Singapore) Pte Ltd.; UMI Company; DataTimes Corporation.

Additional Details

- **Public Company**
- **Incorporated:** 1907
- **Employees:** 5,926
- **Sales:** \$900.2 million (1998)
- **Stock Exchanges:** New York
- **Ticker Symbol:** BHW
- **NAIC:** 514191 On-Line Information Services; 51421 Data Processing Services; 54199 All Other Professional, Scientific & Technical Services

Further Reference

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Bell & Howell Filmo Automatic Cine, 16mm motion picture camera was a movie making work horse for many generations. It was introduced in 1923 in response to the Cine Kodak cameras. Filmo is an excellent design with a compact die cast metal body, which encloses 100 film spools and a heavy spring drive motor. It has a rugged version of the very successful Lumiere/Pathe film transport movement, It comes with the original key ergonomically designed, and with a built in gear which makes it run in the winding direction only. Key has the original chain that is not attached to anything on the other end. The earliest is from 1924, and the latest from 1925. Taylor

Hobson lens f3.5/1.